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Date: SEP 1 1 2014
Symbol: ENV-DO-14-0258
LAUR: 14-27014
Locates Action No.: N/A

Mr. Isaac Chen
U.S. Environmental Protection Agency, Region 6
NPDES Permits Branch (6WQ-P)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Mr. Chen:

Subject: NPDES Permit No. NM0028355, Comments on Permit Issued August 12, 2014

Enclosed (Enclosure 1) are comments submitted by the Los Alamos National Security, LLC (LANS) and the Department of Energy (DOE), Los Alamos Field Office, regarding the new National Pollutant Discharge Elimination System (NPDES) Permit for industrial and sanitary discharges at Los Alamos National Laboratory. The LANS and DOE wish to acknowledge the efforts of the EPA staff, specifically Isaac Chen, who prepared the new permit and documentation package.

Please enter this letter and the enclosed comments into the administrative record for NPDES Permit No. NM0028355. The Permittees respectively request that EPA consider these comments and incorporate them into the final permit. Please be assured that the DOE/LANS are fully committed to comply with all requirements set forth in the final NPDES Permit.

Please contact Michael T. Saladen, (505) 665-6085, of the Laboratory's Environmental Compliance Programs Group (ENV-CP) or Gene E. Turner, (505) 667-5794, of the DOE Los Alamos Field Office if you have questions concerning the enclosed comments or if additional information would be helpful.

Sincerely,

A R Grieggs

Anthony R. Grieggs
Group Leader
Environmental Compliance Programs (ENV-CP)
Los Alamos National Security, LLC

Sincerely,

Gene E Turner

Gene E. Turner
Environmental Permitting Manager
Environmental Projects Office
Los Alamos Field Office
U.S. Department of Energy

ARG:GET:MAB/lm

Enclosures: Comments On Final Permit No. NM0028355 Issued On August 12, 2014

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LAUR-14-27014

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COMMENTS ON FINAL NPDES PERMIT NO. NM0028355 ISSUED ON AUGUST 12, 2014

General Comments:

1. Flow Measurements

   The Final Permit requires flows measurements at Outfalls 03A113, (Page 15 of Part I), 03A027 (Page 17 of Part I), 03A048 (Page 19 of Part I), 03A160 (Page 21 of Part I), and 03A199 (Page 23 of Part I) as "1/Day, Record" under FREQUENCY, SAMPLE TYPE. For Outfall 03A181 (Page 13 of Part I), the flow is required as 1/Day, Estimate. There is no definition for "estimate" or "Record".

   The current permit has the following paragraph included for all 03A (cooling tower) outfalls:

   FLOW MEASUREMENTS
   "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

   This paragraph is not included in the Draft Permit or Final Permit for Outfalls 03A027, 03A048, 03A113, 03A160 and 03A199. There is no explanation in the Fact Sheet or EPA Response to Comments.

   The Permittees request the paragraph for "FLOW MEASUREMENTS" with the definition of "Estimate" above be added to the outfalls 03A181, 03A027, 03A048, 03A113, 03A160 and 03A199 (at Pages 13, 15, 17, 19, 21, and 23 of Part I, respectively) to clarify the flow reporting/measurement requirement. The Permittee also requests that the FREQEUNCY, SAMPLE TYPE under flow be indicated as "1/Day, Estimate" for these six Outfalls.

2. Three-year Compliance Schedules

   In EPA's Responses to Comments, under General Comment #2, EPA states:

   'LANL did not request a compliance schedule for specific requirements in the draft permit but will need to evaluate if compliance schedules are necessary to address any new or revised permit requirements incorporated into the final NPDES permit.'

   New monitoring requirements and more stringent permit limits were established in the new permit for the following outfalls and listed parameters but did not include compliance schedules (See Table 1).

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Table 1

Outfall	Parameter	Frequency	New Permit Limit (mg/L) monthly average/daily maximum	Frequency	Old Permit Limit (mg/L) monthly average/daily maximum
03A048	Total Selenium	3/Week	5.0/5.0	None	No Monitoring/No Limits
	Total Arsenic	Yearly	0.013/0.013	Monthly	0.010/0.014
03A160	Total Arsenic	Yearly	0.013/0.018	None	No Monitoring/No Limits
	Total Copper	3/Week	0.021/0.032	Monthly	0.022/0.032
051*	Total Lead	Weekly	0.076/0.115	Yearly	0.423/0.524

* Has not discharged to the outfall since November 2010. If discharge occurs, Form 2C samples will be collected /submitted to EPA for RP analyses

The Permittees request 3-year compliance schedules be established at outfalls 051, 03A048, and 03A160 (Pages 6, 19, and 21 of Part I, respectively) for the parameters listed in Table 1.

Outfall Specific Comments:

1. Outfall 04A022, Page 11 of Part I
   - The sources of discharge and permit limits for this outfall in the new permit are stated:

     During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge storm water, roof drain water, and once-through cooling water for emergency use only to Mortandad Canyon, in segment number 20.6.4.128 of the Rio Grande Basin. (Cooling tower blowdown is not authorized for discharge at this outfall.)

     Such discharges shall be limited and monitored by the permittee as specified below:

     Flow(MGD) *Report*

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TSS	*30/100 mg/L*
Total Residual Chlorine	*0.011mg/L (1/Week when discharge of once-through cooling water for emergency purposes only)*
Total Recoverable Aluminum	*Report*
Dissolved Copper	*Report*
Adjusted Gross Alpha	*Report*
pH (Standard Unit)	*Range from 6.0 to 9.0*

As stated, it appears that monitoring of storm water and roof drain water (in addition to once-through cooling water) is required for TSS, total recoverable aluminum, dissolved copper, adjusted gross alpha and pH at this outfall. It appears that total residual chlorine monitoring is not required for storm water/roof drain water. Additionally, the pH of natural rainwater in New Mexico is often < 6.0 s.u., and it is unknown if storm water/roof drain water will meet the TSS limits.

The Permittees request clarification on the effluent limits, monitoring and reporting requirements for this outfall. It is assumed that the effluent limits are established only for the once through cooling water discharge. If the intent of the Permit Writer is to have monitoring requirements for storm water and roof drain water in this permit at Outfall 04A022, then the Permittees request that only monitoring and reporting requirements (no effluent limits) be established for storm water discharges, or a 3-year compliance schedule for storm water/roof drain water will be needed to meet the permit limits for pH and TSS at Outfall 04A022 (Page 11 of Part I).

2. Outfall 03A027, Page 17 of Part I

- The cooling towers at the Strategic Computing Complex (SCC) utilize make-up water supplied by the Sanitary Effluent Reclamation Facility (SERF). SERF treats the treated sanitary effluent from the Sanitary Waste Water System (SWWS) plant. The SCC cooling towers discharge to Outfall 03A027. The monitoring requirement and discharge limitations at Outfall 03A027 for E. Coli are footnoted at Page 18 of Part I:

> **2 Logarithmic mean. Effluent limitations and monitoring requirements only apply at Outfall when effluent from Outfall 13S is rerouted and discharged at the Outfall. Total PCB effluent limitations established at Outfall13S applies when effluent from Outfall13S is rerouted and discharged at Outfall 03A027.*

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The Permittees request that "total PCB (ug/L) *2" be added to the effluent characteristic table for Outfall 03A027 after E. Coli to reflect the discharge limitation monitoring requirement (at Page 17 of Part I).

Outfall 13S at Page 4 of Part I, states in part:

> *During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated sanitary waste water to Sandia Canyon in Segment Numbers 20.6.4.126 via outfalls utilizing treated effluent as specified in Outfall 001 and Category 03A, or to Canada del Buey in Segment Numbers 20.6.128 of the Rio Grande Basin.*
>
> *Such discharges shall be limited and monitored by the permittee as specified below:*
>
> *Flow(MGD)*
> *BOD*
> *TSS*
> *E. Coli(#/100 ml)*
> *Total Residual Chlorine*
> *Total PCB*
> *Total Recoverable Aluminum*
> *Adjusted Gross Alpha*
> *pH (Standard Unit)*

All of these parameters, except BOD, are listed in Effluent Characteristic or Footnote *2 for Outfall 03A027 (Page 18 of Part I).

DOE/LANS request clarification as to whether BOD monitoring and reporting requirements apply at Outfall 03A027.

- For Outfall 03A027, the WET testing sample type is '24-Hr. Composite'(Page 18 of Part I)

The Permittees request the WET monitoring requirement be changed to "Grab" due to the intermittent 'discharge type' of the cooling tower blowdown to this outfall. This is consistent with sample type of 'Grab' for all other parameters listed for this outfall.

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3. Outfall 03A113, Page 25 of Part I
    - Buildings 294, 1032, and 1038 no longer discharge to the outfall, and will not in the future.

    The Permittees request the description located on Page 25 of Part I be changed to "TA-53-293 & 952".

4. Outfall 03A181, page 13 of Part I
    - The sources of discharge and permit limits for this outfall in the new permit are stated at Page 13 of Part I:

    During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge storm water, cooling tower blowdown and other wastewater to Mortandad Canyon, in segment number 20.6.4.128 of the Rio Grande Basin.

    Such discharges shall be limited and monitored by the permittee as specified below:

Flow(MGD)	*Report*
TSS	*30/100 mg/L*
Total Phosphorus	*20/40 mg/L*
Total Residual Chlorine	*0.011mg/L (1/Week when discharge of once-through cooling water for emergency purposes only)*
Dissolved Copper	*0.0115 mg/L*
Total Recoverable Aluminum	*2.725 mg/L*
Adjusted Gross Alpha	*Report*
pH (Standard Unit)	*Range from 6.0 to 9.0*

As stated, it appears that monitoring of storm water (in addition to cooling tower blowdown) is required for TSS, total phosphorus, dissolved copper, total recoverable aluminum, adjusted gross alpha and pH at this outfall. Additionally, the pH of rainwater in New Mexico is often < 6.0 s.u., and it is unknown if storm water will meet the TSS limits.

The Permittees request clarification on the effluent limits, monitoring and reporting requirements for this outfall. It is assumed that the effluent limits are established only for cooling tower blowdown. If the intent of the Permit Writer is to have

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effluent limits, and monitoring and reporting requirements for storm water in this permit at Outfall 03A181, then the Permittees request monitoring and reporting requirement only, or a 3-year compliance schedule for storm waterr will be needed to meet the permit limits for pH and TSS at Outfall 04A022.

5. Outfall 03A048, Page 19 of Part I

- Page 19 of Part I of the permit requires an effluent limit, monitoring and reporting requirements for selenium at Outfall 03A048.

  The Calculations of New Mexico Water Quality-Based Effluent Limitations spreadsheets for the draft permit (June 29, 2013) indicates a reasonable potential (RP) for selenium water quality standard exceedance at Outfall 03A048. The appearance of selenium in the sample taken at this cooling tower is a false positive caused by bromine analytical interference. This cooling tower routinely uses bromine as a biocide. DOE/LANS requested that this requirement be eliminated from the final permit (LANL comments page 2, dated August 13, 2013).

  It has been well established that when using EPA Method 200.8 (ICP-MS) for selenium analyses and bromine is present in the waste stream, there will be a positive interference and selenium will appear to be present in the sample. DOE/LANS documented this occurrence in comments submitted to EPA in 2006 on the current permit. As a result, the DOE/LANS used SW 846 Method 7742 (included in Section G. Test Methods in Part II of the current permit) for selenium monitoring and reporting purposes during the existing permit monitoring period. However, during sampling, analyses and reporting for DOE/LANS's NPDES Reapplication Project (Summer/Fall 2011), some selenium results were reported on the EPA's application Form 2C using EPA Method 200.8. These results indicated the presence of selenium, but they are false positives due to the presence of bromine. Upon discovery of the false positives, split samples from Summer/Fall 2011 were sent to the analytical laboratory for selenium re-analysis using SW 846 Method 7742. The split sample results confirmed that selenium was not present in the samples (See yellow text boxes in Table 1 submitted August 13, 2013). Table 4 (submitted August 13, 2013) applies the data analyzed by SW 846 Method 7742 in the recalculation of the RP for selenium for Outfall 03A048. Based on this RP recalculation, there is no reasonable potential for selenium water quality standard exceedances at this outfall. More recent split sample results were also included in Table 1 to illustrate the positive interference when using EPA Method 200.8. Averaging the results obtained using SW846-7742

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and applying that average in the spreadsheet also indicates no reasonable potential to exceed the selenium water quality standard.

DOE/LANS request that the selenium requirements for Outfall 03A048 be deleted from the permit because there is no reasonable potential (RP) for exceedance of the selenium water quality standard.